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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 12/03/2008

Nixon Peabody LLP Clinton Square P.O. Box 31051 EXAMINER HUTSON, RICHARD G

PAPER NUMBER

ART UNIT 1652 DATE MAILED: 12/03/2008

P.O. Box 31051 Rochester, NY 14603-1051

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKIET NO.
 CONFRMATION NO.

 10671,207
 09/25/2003
 Michael E. O'Donnell
 22221/1190 (RU 339)
 6936

TITLE OF INVENTION: NUCLEIC ACID ENCODING BACILLUS STEAROTHERMOPHILUS BETA POLYMERASE SUBUNIT

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 03/03/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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| appropriate. All further indicated unless corrects maintenance fee notifica | correspondence includir ed below or directed oth | ig the Patent, advance on herwise in Block 1, by (a | ders and notification of n specifying a new corres | pondence address; a | ll be mai | iled to the current of indicating a separ | correspondence address as rate "FEE ADDRESS" for |
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| Nixon Peabody Clinton Square P.O. Box 31051 | | /2008 | Lhe | Certi | ficate of | Mailing or Transn | |
| Rochester, NY 1 | 14603-1051 | | | | | | (Depositor's name) |
| | | | | | | | (Signature) |
| | | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | 1 | ATTORN | EY DOCKET NO. | CONFIRMATION NO. |
| 10/671,207 TITLE OF INVENTION | 09/25/2003 : NUCLEIC ACID ENC | ODING BACILLUS STE | Michael E. O'Donnell EAROTHERMOPHILUS I | BETA POLYMERA | | T190 (RU 339) UNIT | 6936 |
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| APPLN, TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE | FEE 7 | TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | NO | \$1510 | \$300 | \$0 | | \$1810 | 03/03/2009 |
| EXAM | IINER | ART UNIT | CLASS-SUBCLASS | | | | |
| HUTSON, R | RICHARD G | 1652 | 435-194000 | | | | |
| 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563). Change of correspondence address for Change of Correspondence Address for PIOSB/122) attached. The Address form Linched. The Address' indication for "Fee Address" Indication form PIOSB/142, New 20-20 crosses recently attached. Use of a Customer Number is required. | | | or agents OR, alternativ (2) the name of a single registered attorney or a 2 registered patent attor listed, no name will be | nmes of up to 3 registered patent attorneys [1] (Raternatively, me of a single firm (thaving as a member a attorney or agent) and the names of up to departent attorneys or agents. If no name is anne will be pretained. | | | |
| PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSI | less an assignee is ident h in 37 CFR 3.11. Comp GNEE | ified below, no assignee eletion of this form is NO | THE PATENT (print or typ data will appear on the p. T a substitute for filing an (B) RESIDENCE: (CTTY inted on the patent): | atent. If an assigned assignment. and STATE OR CO | UNTRY | () | |
| 4a. The following fee(s) Issue Fee Publication Fee (N | vo small entity discount p | | D. Payment of Fee(s): (Plea A check is enclosed. Payment by credit can The Director is hereby overpayment, to Depo | d. Form PTO-2038 | is attache | ed. | |
| | s SMALL ENTITY state | is. See 37 CFR 1.27. | b. Applicant is no long | | | | |
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| Typed or printed nam | | | | Registration No | | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223 | nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450. | FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary den, should be sent to the ONOT SEND FEES OR (| on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO | etain a benefit by the imated to take 12 mi idual case. Any con r, U.S. Patent and T D THIS ADDRESS. | e public v inutes to iments o rademarl SEND T | which is to file (and complete, including in the amount of tin k Office, U.S. Depa IO: Commissioner f | by the USPTO to process) gathering, preparing, and e you require to complete ettment of Commerce, P.O. or Patents, P.O. Box 1450, |

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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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| Nixon Peabody LLP | | | HUTSON, E | RICHARD G |
| Clinton Square | | | ART UNIT | PAPER NUMBER |
| P.O. Box 31051 Rochester, NY 14603-1051 | | | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 159 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 159 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) |
|-------------------|------------------|
| 10/671,207 | O'DONNELL ET AL. |
| Examiner | Art Unit |
| Richard G. Hutson | 1652 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to paper filed on 8/20/2008.
- 2. The allowed claim(s) is/are 17-21.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) ☐ Some* c) ☐ None of the: a) \square All
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3.
 ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7.

 Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. ☐ Other

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Art Unit: 1652

DETAILED ACTION

Applicant's cancellation of claims 1, 2, 6-9, 12-16, in the paper of 8/20/2008, is acknowledged. Claims 17-21 are at issue and are present for examination.

Allowable Subject Matter

Claims 17-21 are allowed.

The following is an examiner's statement of reasons for allowance: While, Janjic et al. (U.S. Patent No. 6,677,146 B1 issued 1/13/2004) teach the cloning and expression of the dnaN gene encoding the β -subunit of DNA polymerase III holoenzyme from *E. coli* and *T. thermophilus*, as well as a simple processivity assay for the *T. thermophilus* β -subunit and Kaboev et al. (J. Bacteriology, Vol 145, No. 1, pp 21-26 1981) teach the purification and properties of DNA polymerase I from *Bacillus stearothermophilus* and Kaboev et al. teach that the DNA polymerase I that they isolated has some differences from that isolated by others and lead Kaboev et al. to hypothesize that their DNA polymerase I preparation is not homogeneous and is contaminated with other DNA polymerase activities, the art does not teach or suggest an isolated DNA molecule that encodes the amino acid sequence of SEQ ID NO: 174 (In re Deuel, 34 USPQ2d 1210 (Fed. Cir. 1995).

Application/Control Number: 10/671,207

Art Unit: 1652

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard G. Hutson whose telephone number is 571-272-0930. The examiner can normally be reached on M-F, 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nashaat T. Nashed can be reached on 571-272-0934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

rgh 11/25/2008

/Richard G Hutson/ Primary Examiner, Art Unit 1652